

REMARKS

The above amendments to the above-captioned application along with the following remarks are being submitted as a partial response to the Official Action dated November 25, 2005. In view of the above amendments and the following remarks, the Examiner is respectfully requested to give due reconsideration to this application, to indicate the allowability of the claims, and to pass this case to issue.

Status of the Claims

Claims 1-6 and 11-16 are under consideration in this application. Claims 1 and 6 are being amended, as set forth above and in the attached marked-up presentation of the claim amendments, in order to more particularly define and distinctly claim Applicants' invention. All the amendments to the claims are supported by the specification. Applicants hereby submit that no new matter is being introduced into the application through the submission of this response.

Formality Objections & Rejections

Claims 12-15 were objected to for improper dependency, and claims 1-5, 11 and 16 were rejected under 35 U.S.C. § 112, first paragraph, on the grounds that claim 1 recites "said network sending a first network address assigned to said user computer from said Internet service provider to said access server" which the Examiner considered not to be enabled by the specification.

The method (for example, the embodiment depicted in Fig. 7; pp. 10-14) for providing a data communication service (Fig. 1), which connects a user computer 311 to an Internet service provider 305 via an access server 331 in a local switch center 303 and an IP network 304 (including an address translation apparatus 341), comprises: a step of connecting the IP network 304 to the Internet service provider 305 via a first router 347 and to the user computer 311 via a second router 346, the access server 331, and a public switched telephone network (PSTN) 302 respectively (Fig. 3); a step 701 of said user computer 311 communicating with said access server 331 based on a point-to-point protocol (e.g., LCP; p. 11, line 15); a step of said access server 331 receiving a user ID and a password from said user computer 311 based on an authentication protocol (e.g., CHAP, p. 11, line 20); a step of said access server 331 sending said user ID and said password to said IP network 304; a step of said IP network 304 sending a first network address (i.e., a public IP address) assigned to

said user computer 311 from said Internet service provider 305 to an address translation gateway AT-GW 341 after authenticating a respective user by using said user ID and said password; a step 709 of said address translation gateway AT-GW 341 translating the first/public network address sent from said Internet service provider 305 into a second/private network address and sending said second network address to said access server 331; a step of said access server 331 sending said *second/private* network address to said user computer 311 based on a control protocol (e.g., IPCP, p. 11, last line to p. 12, line 3); a step of providing the user computer 311 with contents inside a respective private network not via the first router 347, said private network including the public switched telephone network (PSTN) 302 and the access server 331(p. 10, lines 17-19; Fig. 3); and a step of establishing communication between said user computer 311 and said Internet service provider 305.

As indicated, claim 1 is being amended as required by the Examiner. Accordingly, the withdrawal of the outstanding informality rejection is in order, and is therefore respectfully solicited.

Prior Art Rejections

Claims 6 and 12-14 were rejected under 35 USC § 103(a) as being unpatentable over the prior art disclosed in the present specification (pages 1-4, Figures 1-2; "AAPA") in view of US Pat. No. 6,490,289 to Zhang (hereinafter "Zhang"), and further in view of US Pat. No. 6,938,158 to Azuma (hereinafter "Azuma"), and against claim 15 further in view of U.S. Appl. No. 2002/0138737 to Schulz (hereinafter "Schulz"). These rejections have been carefully considered, but is most respectfully traversed in view of the amended claims, as more fully discussed below.

The invention as now recited in claim 6 is directed to an address translation apparatus (for example, the embodiment depicted in Figs. 3, 7-8, 14-15; pp. 11-12 & 20-23) connected via a first router 346 to an access server 331 in a local switch center 303 and a public switched telephone network (PSTN) 302, which is connected to plural user computers 311, and via a second router 347 to an IP network 304 which is connected to plural Internet service providers 305, 306, comprising: an authenticating part 1402 (Fig. 14) which authenticates a user by using a private network user ID (e.g., "XXX" in Fig. 8) and a private network password received from said access server 331 to retrieve and send a corresponding ISP user ID (e.g., "abc") and a corresponding ISP password ("def") to an ISP-A contracted to provide internet services to the user so as to authenticate the user by the ISP-A (steps 705-706 in Fig. 7; p. 15, lines 7-18; Fig. 8, p. 14, last paragraph), and said authenticating part 1402

sends a private network address assigned to said user to said access server 331 by using a point-to-point protocol (e.g., LCP; p. 11, line 15; p. 21, 1st full paragraph); a translating part 1403 which translates the private network address into a public IP network address assigned to said user computer by one of said Internet service providers (p. 21, 2nd full paragraph); a local service server 344 which provides the user with contents inside a respective private network not via the second router 347, said private network including the public switched telephone network (PSTN) 302 and the access server 331 (“a local service server 344 used by the communication enterprise to provide its users with contents inside its own network not via the Internet” p. 10, lines 17-19; Fig. 3); and an output part 1405 which outputs said public IP network address to said IP network 304 (p. 22, 1st paragraph).

As such, the address translation apparatus 341 does not directly authenticate the user, but “relay” the authentication to the ISP-A contacted with the user to provide internet services. By automatically “relaying” the authentication (Steps 706 and 707 in Fig. 7) from the communication/network service provider 304 to the ISP 305, the communication carrier (Network Operator) 304 not only connects between a user computer 311 and the ISP 305, but also provides content-supply services to a user computer 311 via Point-to-Point Protocol (PPP) with its local service server 344. Therefore, the invention allows communication enterprises providing data communication services to provide contents to the users not via the Internet (p. 5, 2nd paragraph).

In contrast, the AAPA depicted in Fig. 1 (p. 4, paragraph 13 of the outstanding Office Action) does not include any public switched telephone network (PSTN) between an access server and a user computer, while the AAPA depicted in Fig. 2 has a PSTN but not any access server in a local switch center 303 separated from an local IP network 304 including an address translation apparatus 341.

Zhang’s ISP gateway 154 was relied upon by the Examiner (p. 5, paragraphs 14-15 of the outstanding Office Action) to teach the address translation apparatus of the invention. However, Zhang’s ISP gateway 154 does not include “any local service server 344 which provides the user with contents inside a respective private network not via the second router 347, said private network including the public switched telephone network (PSTN) 302 and the access server 331” of the invention.

As to the other cited references, they fail to compensate for the deficiencies of AAPA and Zhang.

In addition, none of the cited references teaches or describes that “the ISP is disconnected automatically after communication between the ISP and the user stops for a

predetermined time period” as recited in claims 15-16.

Applicants contend that neither AAPA, Zhang, Azuma, Schulz, nor their combinations teaches or discloses each and every feature of the present invention as disclosed in independent claims 1 and 6. As such, the present invention as now claimed is distinguishable and thereby allowable over the rejections raised in the Office Action. The withdrawal of the outstanding prior art rejections is in order, and is respectfully solicited.

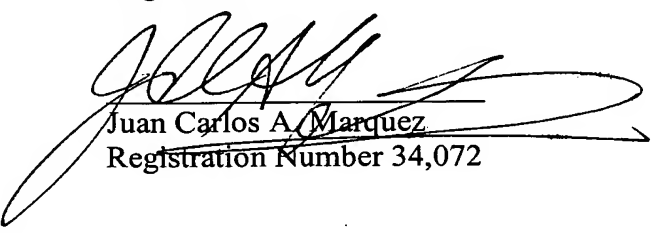
Conclusion

In view of all the above, clear and distinct differences as discussed exist between the present invention as now claimed and the prior art reference upon which the rejections in the Office Action rely, Applicants respectfully contend that the prior art references cannot anticipate the present invention or render the present invention obvious. Rather, the present invention as a whole is distinguishable, and thereby allowable over the prior art.

Favorable reconsideration of this application is respectfully solicited. Should there be any outstanding issues requiring discussion that would further the prosecution and allowance of the above-captioned application, the Examiner is invited to contact the Applicants' undersigned representative at the address and phone number indicated below.

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